

Daniel M. Smith, Jr.

Retired Professor of Physics, South Carolina State University, Orangeburg, SC
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Education		
1982	Ph.D., Physics	Northeastern University Boston, MA
1973	M.S., Physics	Howard University Washington, D.C.
1970	B.S., Physics	Howard University Washington, D.C.

Employment		
2018	Retired	
2008-2018	Professor of Physics	South Carolina State University Orangeburg, SC
2002-2008	Tenure, Associate Professor of Physics	South Carolina State University Orangeburg, SC
2001-2002	Associate Professor of Physics	South Carolina State University Orangeburg, SC
1995-2001	Assistant Professor of Physics	South Carolina State University Orangeburg, SC

Teaching Accomplishments	
2000-2005	<i>Undergraduate Research In Astrophysics (URIA)</i> . Three faculty members introduce students from HBCU's to astrophysics and cosmology during the summer through an intense short course followed by the students's completion of research projects.
2000-2001	"Teacher of the Year" for the School of Engineering Technology and Sciences
1998-Present	<i>Workbook for Introductory Mechanics Problem-Solving</i> . Self-study workbook to help students understand physics problems conceptually before attempting to use equations. Students work through a group of problems one stage at a time. Funded by FIPSE.
1997-Present	<i>Inquiry-based Physics Lab for Underprepared Students at SCSU</i> . Conversion of General Physics lab to computer-based lab, and change of the lab curricula to inquiry-based curricula. Funded by NSF.

Membership in Professional Societies	
American Physical Society	
American Association of Physics Teachers	

Professional Service	
July 2014	Workshop Organizer, American Association of Physics Teachers, National Meeting, Minneapolis: "Cosmology in the Classroom"
July 2013	Workshop Organizer, American Association of Physics Teachers, National Meeting, Philadelphia: "Teaching Physics in Urban Schools"
July 2013	Workshop Organizer, American Association of Physics Teachers, National Meeting, Philadelphia: "Cosmology in the Classroom"
2009-present	Reviewer, <i>Physical Review Special Topics - Physics Education Research</i>
2005-present	Reviewer, <i>The Physics Teacher</i>
2005-2009	Physics SAT Committee, The College Board
2001-2005	Physics Academic Program Coordinator, South Carolina State University

Book and Book Chapter	
1999	<i>Workbook for Introductory Mechanics Problem-Solving</i> , e-book, Prentice-Hall, Upper Saddle River, NJ (1999), ancillary to J. Wilson and A. Buffa, <i>College Physics</i> , 4 th edition, Prentice-Hall, Inc., Upper Saddle River, NJ (2000).
1997	"Effectively Attacking Misconceptions in Introductory Physics Problem-Solving," in proceedings of the <i>Conference on the Introductory Physics Course</i> , edited by J. Wilson (John Wiley & Sons, New York, 1997).

Selected Articles and Creative Products	
2014	Daniel M. Smith, Jr., "City-City Correlations to Introduce Galaxy-Galaxy Correlations," <i>Communicating Astronomy with the Public (CAP) Journal</i> 15 , 31 (July 2014).
2011	Daniel M. Smith, Jr., "1D Kinematics Problem Solver," <i>Wolfram Demonstrations Project</i> , http://demonstrations.wolfram.com/1DKinematicsProblemSolver/
2004	Daniel M. Smith, Jr., "Analysis of a Projectile Motion Problem in a Free-Fall Frame," <i>The Physics Teacher</i> 42 , 236 (April 2004).
2003-Present	Website: "Cosmology for Non-Science Majors" http://physics.scsu.edu/~dms/cosmology/home2.html
2000	Daniel M. Smith, Jr., "A graphical interpretation of an algebraic solution," <i>The Physics Teacher</i> 38 , 326 (September 2000).

Recent Presentations	
Jan. 2016	Poster Presentation, Daniel M. Smith, Jr., "Cosmological Parameter Estimation from CMB Data for Undergrads," winter meeting of the American Association of Physics Teachers, New Orleans, LA
July 2013	Poster Presentation, Daniel M. Smith, Jr., "Curvature of the Universe CMB Lab for Non-Science Majors," summer meeting of the American Association of Physics Teachers, Portland, OR
Jan. 2013	Oral Presentation, Daniel M. Smith, Jr., "Cosmology for Non-science Majors by Using Web-based Apps," winter meeting of the American Association of Physics Teachers, New Orleans, LA
Sept. 2012	Poster Presentation, Daniel M. Smith, Jr., "City-City Correlations to Introduce Galaxy-Galaxy Correlations," Statistical and Applied Mathematics Institute workshop in Astrostatistics, Research Triangle Park, NC
July 2012	Poster Presentation, Daniel M. Smith, Jr., "City-City Correlations to Introduce Galaxy-Galaxy Correlations," Gordon Research Conference on Astronomy's Discoveries and Physics Education, Colby College, Waterville, ME
August 2011	Oral Presentation, Daniel M. Smith, Jr., "Measuring Conceptual Understanding in Kinematics by Problem-Solving," summer meeting of the American Association of Physics Teachers, Omaha, NE
Jan. 2011	Oral Presentation, Daniel M. Smith, Jr., "Correlation Functions of Large Scale Structure Simulations on a PC," winter meeting of the American Association of Physics Teachers, Jacksonville, FL

Selected Funding	
2014-2017	"A Partnership in Observational and Computational Astronomy II (POCA II)," NSF, Co-PI, \$300,000
2008-2013	"A Partnership in Observational and Computational Astronomy (POCA)," NSF, Co-PI, \$2,000,000
2012-2013	"Cosmic Microwave Background Analysis for Physics Undergraduates," South Carolina Space Grant Consortium/NASA EPSCor, PI, \$35,000
2005-2010	"Research-Infused STEM Curriculum at South Carolina State University," Co-author, Lead Faculty, NSF, \$2,500,000